

IN THE CLAIMS

Please amend the claims as follows:

1. (Withdrawn) A solid-electrolyte battery comprising:
an elongated positive electrode;
an elongated negative electrode disposed opposite to said positive electrode; and
a solid-electrolyte layer for each of said positive electrode and said negative electrode, wherein
said solid-electrolyte layers for said positive electrode and said negative electrode are laminated such that they face each other and are wound in the lengthwise direction about said positive electrode and said negative electrode; and
said solid-electrolyte layers for said positive electrode and said negative electrode are integrated with each other so as to be formed into one continuous seamless layer.
2. (Withdrawn) A solid-electrolyte battery according to claim 1, wherein said solid-electrolyte layer contains swelling solvent and is gelled.
3. (Withdrawn) A solid-electrolyte battery according to claim 1, wherein said solid-electrolyte layer disposed between said positive electrode and said negative electrode is formed into a single layer.
4. (Withdrawn) A solid-electrolyte battery comprising:
an elongated positive electrode;
a positive electrode terminal welded to said positive electrode;
an elongated negative electrode disposed opposite to said positive electrode;
a negative electrode terminal welded to said negative electrode; and
a solid-electrolyte layer for each of said positive electrode and said negative electrode, wherein
said solid-electrolyte layers for said positive electrode and said negative electrode are laminated such that they face each other and are wound in the lengthwise direction,
said solid-electrolyte layers for said positive electrode and said negative electrode are integrated with each other so as to be formed into one continuous seamless layer, and

said positive electrode, said negative electrode and said solid-electrolyte layer are packaged in a packaging film.

5. (Withdrawn) A solid-electrolyte battery according to claim 4, wherein said solid-electrolyte layer contains swelling solvent and is gelled.

6. (Withdrawn) A solid-electrolyte battery according to claim 4, wherein said solid-electrolyte layer disposed between said positive electrode and said negative electrode is formed into a single layer.

7. (Currently Amended) A method of manufacturing a solid-electrolyte battery comprising:

forming solid-electrolyte layers on both sides of a positive electrode;

forming solid-electrolyte layers on both sides of a negative electrode;

laminating said positive electrode and said negative electrode ~~directly without a separator~~ such that one of said solid-electrolyte layers formed on said positive electrode and one of said solid-electrolyte layers formed on said negative electrode face each other;

winding said positive electrode and said negative electrode such that another one of said solid-electrolyte layers formed on said positive electrode and another one of said solid-electrolyte layers formed on said negative electrode face each other; and

subjecting said wound electrodes to heat treatment so that said solid-electrolyte layers formed on said positive electrode and said solid-electrolyte layers formed on said negative electrode are integrated with each other into one continuous seamless layer.

8. (Original) A method of manufacturing a solid-electrolyte battery according to claim 7, wherein said solid-electrolyte layer contains swelling solvent and is gelled.

9. (Original) The method of claim 7, wherein said wound electrodes are subjected to heat treatment at 70° C to 100° C.

10. (Original) The method of claim 7, wherein said wound electrodes are subjected to heat treatment for ten minutes.

11. (New) The method of claim 8, wherein said electrolyte salt is any one of LiPF₆, LiAsF₆, LiBF₄, LiClO₄, LiCF₃SO₃, Li(CF₃SO₂)₂N and LiC₄F₉SO₃ or their mixture.

12. (New) The method of claim 8, wherein said matrix polymer is any one of polyacrylonitrile, polyvinylidene fluoride, polytetrafluoroethylene, polyhexafluoropropylene, polyethylene oxide, polypropylene oxide, polyphosphazene, polysiloxane, polyvinyl acetate, polyvinyl alcohol, polymethyl methacrylate, polyacrylic acid, polymethacrylic acid, styrene-butadiene rubber, nitrile-butadiene rubber, polystyrene or polycarbonate.

13. (New) The method of claim 8, wherein said swelling solvent is any one of the following nonaqueous solvent: ethylene carbonate, propylene carbonate, butylene carbonate, -butylolactone, -valerolactone, diethoxyethane, tetrahydrofuran, 2-methyltetrahydrofuran, 1, 3-dioxane, methyl acetate, methyl propionate, dimethylcarbonate, diethyl carbonate or ethylmethyl carbonate or their mixture.

14. (New) The method of claim 7 further comprising inserting said wound electrodes into a film pack.

15. (New) The method of claim 14 further comprising subjecting said film pack to heat treatment so that said solid-electrolyte layers formed on said positive electrode and said solid-electrolyte layers formed on said negative electrode are integrated with each other into one continuous seamless layer.

16. (New) The method of claim 7, wherein said solid-electrolyte layer contains swelling solvent, an electrolyte salt, and matrix polymers and is gelled.

17. (New) A method of manufacturing a solid-electrolyte battery comprising:
forming solid-electrolyte layers on both sides of a positive electrode and a negative electrode, wherein one of said solid-electrolyte layers formed on said positive electrode and one of said solid-electrolyte layers formed on said negative electrode face each other;
winding said positive electrode and said negative electrode; and

subjecting said wound electrodes to heat treatment so that said solid-electrolyte layers formed on said positive electrode and said solid-electrolyte layers formed on said negative electrode are integrated with each other into one continuous seamless layer.